

The Examiner is sincerely thanked for acknowledging Applicant's claim for foreign priority. Certified copies of the Japanese applications are included herein.

Fig. 10B has been amended to correct a minor typographical error.

Claims 5 and 6 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 5 and 6 do not depend on each other and represent different embodiments of the present invention. Applicant respectfully submits that they are in condition for allowance.

Claims 1-3, 5-8 and 10 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,133,655 to Suzuki et al. (hereinafter "Suzuki"). Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 6,181,036 B1 to Kazama et al. (hereinafter "Kazama"). Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 5,821,710 to Masuzawa et al. (hereinafter "Masuzawa").

Claim 1 of the present application recites plates of the same number as the magnets, each of the plates being disposed on the rotor at a position along a circular path nearby a corresponding magnet and magnetized by leakage flux of the corresponding magnet.

Suzuki discloses a stepping motor with an index generating magnetized portion 152. As shown in Fig. 3B, there are substantially more magnets in the index generating magnetized portion 152 than field magnets 150. Further, the magnets in the index generating magnetized portion 152 are pre-magnetized as shown, and are not magnetized by leakage flux of corresponding field magnets 150. Further, there is a shield ring 151 to prevent leakage of flux between the magnets in the index generating magnetized portion 152 and the field magnets 150. The Patent Office is respectfully requested to distinctly point out, in Suzuki, plates of the same number as the magnets, each of the plates being disposed on the rotor at a position along a circular path nearby a corresponding

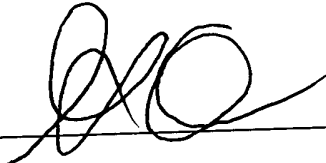
magnet and magnetized by leakage flux of the corresponding magnet. Claim 1 is believed to be patentable over Suzuki.

The secondary references do not cure the deficiencies of Suzuki.

In view of the foregoing remarks, applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, or if an examiner's amendment would facilitate the allowance of one or more of the claims, the examiner is invited to contact the undersigned attorney at the local telephone number below.

Respectfully submitted,

Date 8/8/01

By 

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicant hereby petitions for any needed extension of time.

**Appendix A**

**MARKED UP VERSION TO SHOW CHANGES MADE**

**In the specification:**

The specification has been amended as follows:

The paragraph beginning at page 8, line 18:

--Referring now to FIGs. 6A – 6C, possible variations in the disposition of the plates 25 will be described. In FIG. 1, each of the plates 25 is recessed on the end plate 23. However the plate 25 may be disposed in various ways in this invention. For example, as shown in FIG. 6A, the plate 25 may be fixed on the end plate 23. As shown in FIG. 6B, half of the plate 25 may be recessed in the end plate 23. Furthermore as shown in FIG. 6C, the plate 25[C] may be fixed to an outer edge of the end plate 23. If the plate 25[C] is lengthened in the direction of the rotation shaft 21 as shown in [the figure] Fig. 6C, it is possible to dispose the magnetic sensor 27 on an outer side of the rotor 17.--

The paragraph beginning at page 9, line 2:

--As described above, according to the magnetic pole position detector of this invention, because a magnetic loop is concentrated on both ends of the plate 25, the phase shift of the output signal of the magnetic sensor 27 is not likely to occur, so the detection of the position of the magnetic poles of the rotor 17 is always performed with accuracy.--